

CLAIMS

1. A wireless terminal in a wireless communication system, comprising:
a receive data processor operative to receive a first message with prefix information at a first time instant, wherein the prefix information includes a prefix used to derive an Internet Protocol (IP) address for the terminal and a lifetime for the prefix;
and
a transmit data processor operative to send a second message to solicit updated prefix information after a second time instant if a designated condition is met, wherein the second time instant is a threshold time period from the first time instant, and wherein the threshold time period is derived based on the lifetime for the prefix and is shorter than the lifetime.
2. The terminal of claim 1, wherein the first message is a Router Advertisement in Internet Protocol Version 6 (IPv6) and the second message is a Router Solicitation in IPv6.
3. The terminal of claim 1, wherein the designated condition is met if the terminal is active.
4. The terminal of claim 1, wherein the designated condition is met if an air-link connection is established for the terminal.
5. The terminal of claim 1, further comprising:
a controller operative to derive the threshold time period based on the lifetime of the prefix.
6. The terminal of claim 1, further comprising:
a timer operative to expire at the end the threshold time period.

7. The terminal of claim 1, wherein the threshold time period is a percentage of the lifetime for the prefix.

8. The terminal of claim 1, wherein the threshold time period is the lifetime for the prefix minus a fixed amount of time.

9. The terminal of claim 1, wherein the receive data processor is further operative to receive a third message with the updated prefix information, and wherein the threshold time period is updated based on the lifetime for the prefix in the updated prefix information.

10. The terminal of claim 1, wherein the designated condition is met if the terminal is configured with an always-on data session.

11. The terminal of claim 1, wherein the designated condition is met if there was data activity during the threshold time period.

12. The terminal of claim 1, wherein the wireless communication system is a Code Division Multiple Access (CDMA) communication system.

13. A method of maintaining Internet Protocol (IP) connectivity for a wireless terminal in a wireless communication system, comprising:

receiving a first message with prefix information at a first time instant, wherein the prefix information includes a prefix used to derive an IP address for the terminal and a lifetime for the prefix; and

sending a second message to solicit updated prefix information after a second time instant if a designated condition is met, wherein the second time instant is a threshold time period from the first time instant, and wherein the threshold time period is derived based on the lifetime for the prefix and is shorter than the lifetime.

14. The method of claim 13, wherein the first message is a Router Advertisement in Internet Protocol Version 6 (IPv6) and the second message is a Router Solicitation in IPv6.

15. The method of claim 13, wherein the designated condition is met if the terminal is active.

16. The method of claim 13, further comprising:
receiving a third message with the updated prefix information; and
updating the threshold time period based on the lifetime for the prefix in the updated prefix information.

17. The method of claim 13, wherein the wireless communication system is a Code Division Multiple Access (CDMA) communication system.

18. An apparatus in a wireless communication system, comprising:
means for receiving a first message with prefix information at a first time instant, wherein the prefix information includes a prefix used to derive an Internet Protocol (IP) address for a terminal and a lifetime for the prefix; and
means for sending a second message to solicit updated prefix information after a second time instant if a designated condition is met, wherein the second time instant is a threshold time period from the first time instant, and wherein the threshold time period is derived based on the lifetime for the prefix and is shorter than the lifetime.

19. The apparatus of claim 18, wherein the first message is a Router Advertisement in Internet Protocol Version 6 (IPv6) and the second message is a Router Solicitation in IPv6.

20. A processor readable media for storing instructions operable in a wireless device to:

receive a first message with prefix information at a first time instant, wherein the prefix information includes a prefix used to derive an Internet Protocol (IP) address for a terminal and a lifetime for the prefix; and

send a second message to solicit updated prefix information after a second time instant if a designated condition is met, wherein the second time instant is a threshold time period from the first time instant, and wherein the threshold time period is derived based on the lifetime for the prefix and is shorter than the lifetime.

21. A method of avoiding dormant reactivation to receive Internet Protocol Version 6 (IPv6) Router Advertisements in a wireless communication system, comprising:

receiving a Router Advertisement with prefix information at a first time instant, wherein the prefix information includes a prefix used to derive an IPv6 address for a terminal and a lifetime for the prefix;

waiting for a threshold time period after receiving the Router Advertisement, wherein the threshold time period is derived based on the lifetime for the prefix and is shorter than the lifetime; and

sending a Router Solicitation to solicit updated prefix information after a second time instant if the terminal is active, wherein the second time instant is the threshold time period from the first time instant.

22. A wireless terminal in a wireless communication system, comprising:

a receive data processor operative to receive a first message with prefix information at a first time instant, wherein the prefix information includes a prefix used to derive an Internet Protocol (IP) address for the terminal and a lifetime for the prefix; and

a transmit data processor operative to send a second message to solicit updated prefix information at a second time instant, wherein the second time instant is a threshold time period from the first time instant, and wherein the threshold time period is derived based on the lifetime for the prefix and is shorter than the lifetime.

23. A wireless terminal in a wireless communication system, comprising:
a receive data processor operative to receive a first message with prefix information at a first time instant, wherein the prefix information includes a prefix used to derive an Internet Protocol (IP) address for the terminal and a lifetime for the prefix;
and

a transmit data processor operative to

send a second message to solicit updated prefix information after a second time instant if a first condition is met, wherein the second time instant is a first threshold time period from the first time instant, and

send the second message at a third time instant if a second condition is met, wherein the third time instant is a second threshold time period from the first time instant, wherein the first and second threshold time periods are derived based on the lifetime for the prefix and are shorter than the lifetime, and wherein the second threshold time period is longer than the first threshold time period.

24. The terminal of claim 23, wherein the first condition is met if the terminal is active.

25. The terminal of claim 23, wherein the second condition is met if the terminal is configured with an always-on data session.

26. The terminal of claim 23, wherein the second condition is met if there was data activity during the second threshold time period.

27. The terminal of claim 23, wherein the second condition is met if there is likelihood of future data activity.

28. A method of maintaining Internet Protocol (IP) connectivity for a wireless terminal in a wireless communication system, comprising:

receiving a first message with prefix information at a first time instant, wherein the prefix information includes a prefix used to derive an IP address for the terminal and a lifetime for the prefix;

sending a second message to solicit updated prefix information after a second time instant if a first condition is met, wherein the second time instant is a first threshold time period from the first time instant; and

sending the second message at a third time instant if a second condition is met, wherein the third time instant is a second threshold time period from the first time instant, wherein the first and second threshold time periods are derived based on the lifetime for the prefix and are shorter than the lifetime, and wherein the second threshold time period is longer than the first threshold time period.

29. An apparatus in a wireless communication system, comprising:

means for receiving a first message with prefix information at a first time instant, wherein the prefix information includes a prefix used to derive an Internet Protocol (IP) address for a terminal and a lifetime for the prefix;

means for sending a second message to solicit updated prefix information after a second time instant if a first condition is met, wherein the second time instant is a first threshold time period from the first time instant; and

means for sending the second message at a third time instant if a second condition is met, wherein the third time instant is a second threshold time period from the first time instant, wherein the first and second threshold time periods are derived based on the lifetime for the prefix and are shorter than the lifetime, and wherein the second threshold time period is longer than the first threshold time period.

30. A network entity in a wireless communication system, comprising:

a controller operative to determine an operating mode of a wireless terminal when a first message with prefix information was sent, wherein the prefix information includes a prefix used to derive an IP address for the terminal and a lifetime for the prefix; and

a data processor operative to, if the terminal was in a dormant mode when the first message was sent, send a second message with updated prefix information to the terminal when the terminal is in an active mode.

31. A method of maintaining Internet Protocol (IP) connectivity for a wireless terminal in a wireless communication system, comprising:

determining an operating mode of the terminal when a first message with prefix information was sent, wherein the prefix information includes a prefix used to derive an IP address for the terminal and a lifetime for the prefix; and

if the terminal was in a dormant mode when the first message was sent, sending a second message with updated prefix information to the terminal when the terminal is in an active mode.